



AF IAW

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No. Q66892

Haruo ICHIKAWA, et al.

Appln. No. 09/996,974

Group Art Unit: 3652

Confirmation No. 4743

Examiner: Charles A. FOX

Filed: November 30, 2001

For: METHOD OF AND APPARATUS FOR TRANSFERRING ROLLS,  
AND ROLL SUPPLY CARRIAGE

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.41, Appellant respectfully submits this Reply Brief in response to the Examiner's Answer dated October 20, 2004. Entry of this Reply Brief is respectfully requested.

**Table of Contents**

I. STATUS OF CLAIMS .....	2
II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL.....	3
III. ARGUMENT .....	5
IV. CONCLUSION.....	12

REPLY BRIEF UNDER 37 C.F.R. § 41.41  
U.S. Application No. 09/996,974  
Attorney Docket No. Q66892

### **I. STATUS OF CLAIMS**

A statement of the status of the claims for the present appeal is set forth in Appellant's Appeal Brief filed on July 26, 2004, wherein a listing of the claims on appeal is provided in an attached Appendix. The following summary provides an overview of the claims on appeal.

The present application was filed on November 30, 2001 with claims 1-16. Claims 1 and 4 were amended and claims 2 and 6 were canceled in the Amendment Under 37 C.F.R. § 1.111 filed on October 16, 2003 in response to the non-final Office Action dated July 16, 2003. Then, claims 1, 4 and 11 were amended and claims 3 and 7 were canceled in the Amendment Under 37 C.F.R. § 1.116 filed on March 17, 2004 in response to the final Office Action dated December 30, 2003. Thereafter, no further amendments have been made to claims 1, 4-5 and 8-16, which are all the claims currently pending in the application and are the claims on appeal.

## **II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

As set forth in the Appeal Brief filed on July 26, 2004, the following issues correspond to the grounds of rejection to be reviewed on appeal:

1. Whether or not claims 1 and 4 are patentable over U.S. Patent No. 5,466,114 to Swain (hereinafter “Swain”) in view of U.S. Patent No. 4,290,734 to Van Breen (hereinafter “Van Breen”), under 35 U.S.C. § 103(a).

2. Whether or not claims 5 and 10 are patentable over Swain and Van Breen, as applied to claim 4, and further in view of U.S. Patent No. 4,953,805 to Rauh (hereinafter “Rauh”), under 35 U.S.C. § 103(a).

3. Whether or not claims 8 and 9 are patentable over Swain and Van Breen, as applied to claim 4, and further in view of U.S. Patent No. 1,907,447 to Schiltz (hereinafter “Schiltz”), under 35 U.S.C. § 103(a).

4. Whether or not claims 11-14 are patentable over U.S. Patent No. 4,557,515 to Read (hereinafter “Read”) in view of Swain, under 35 U.S.C. § 103(a).

5. Whether or not claim 15 is patentable over Read and Swain, as applied to claim 11, and further in view of Van Breen, under 35 U.S.C. § 103(a).

6. Whether or not claim 16 is patentable over Read and Swain, as applied to claim 11, and further in view of Rauh and Japanese Publication No. 07-034759 to Sano et al. (hereinafter “Sano”), under 35 U.S.C. § 103(a).

REPLY BRIEF UNDER 37 C.F.R. § 41.41  
U.S. Application No. 09/996,974  
Attorney Docket No. Q66892

For at least the reasons set forth in Section VIII of the Appeal Brief and Section III below, Appellant respectfully submits that claims 1, 4-5 and 8-16 are patentable over the aforementioned grounds of rejection.

### **III. ARGUMENT**

As an initial matter, Appellant notes the following two errors in the Examiner's Answer.

On page 2 of the Answer, item (2) presents contradictory statements concerning the *Related Appeals And Interferences* section of the Appeal Brief filed on July 26, 2004. It is respectfully submitted that Appellant's Appeal Brief contains the requisite statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the present appeal (*see, e.g.*, Section II on page 2 of the Appeal Brief), and any statement to the contrary is erroneous.

On page 3 of the Answer, in item (7), the Examiner alleges that claims 1, 4-5 and 8-10 stand or fall together and claims 11-16 stand or fall together, because the Appeal Brief does not contain a statement that this grouping of claims does not stand or fall together and reasons in support thereof.

As noted in § 1206 of the MPEP, however, claims need only be grouped for each ground of rejection applying to a group of two or more claims. Appellant's Appeal Brief clearly indicates that claims 1 and 4, which correspond to the first ground of rejection set forth above in Section II, stand or fall together; claims 5 and 10, which correspond to the second ground of rejection set forth above, stand or fall together; claims 8 and 9, which correspond to the third ground of rejection set forth above, stand or fall together; and claims 11-14, which correspond to the fourth ground of rejection set forth above, stand or fall together. Since claims 15 and 16 individually correspond to the fifth and sixth grounds of rejection, respectively, as set forth above, there is no need to group these two claims.

Thus, the Board is requested to consider these appealed claim in the context of the aforementioned grounds of rejection, each of which is contested by the Appellant.

Appellant now responds to the new points raised by the Examiner in his Answer (*e.g.*, on pages 9-12 in item (11)).

**1. Claims 1 And 4 Are Patentable Over Swain In View Of Van Breen**

The Examiner alleges that claim 1 does not include a limitation of moving the rolls by rotation of the roll loading shaft (Examiner's Answer: page 10, lines 5-8). The Examiner alleges that claim 1, instead, includes a limitation of rotating the loading shaft to actuate a mechanism on the roll retaining shaft (*Id.*). Appellant respectfully disagrees and notes that the Examiner appears to be choosing portions of the claimed recitations and then interpreting these portions outside of the context of the claim as a whole.

Claim 1 is directed to a method of transferring a roll and recites, *inter alia*, "moving and transferring said supported one of the rolls along said roll retainer shaft onto said roll loading shaft" and that "a mechanism associated with said roll retainer shaft is actuated by a rotating action of a mechanism associated with said roll loading shaft to move said rolls along said roll retainer shaft."

The Examiner alleges that Swain teaches rotating the loading shaft to actuate a mechanism on the roll retaining shaft by describing a shaft that has a button 24 on its end that is engaged by another shaft 110, wherein the button is pressed and rotated to actuate the mechanism 42 that allows the rolls to be moved from the roll retaining shaft (Examiner's Answer: page 10, lines 7-12).

It appears that the Examiner is missing the point, since claim 1 requires more than the simple shaft locking/unlocking mechanism as described in Swain (*see, e.g.*, Swain: col. 5, lines 27-42). In other words, a mechanism that is actuated to allow rolls (*e.g.*, through manual lateral movement of the rolls) to be moved from a first shaft to a second shaft, as described in Swain, is not the same as a mechanism that actually moves the rolls along the first shaft to facilitate their transfer to the second shaft. It is worth noting that an exemplary object of the present invention is to provide for the transferring of rolls automatically and reliably without human intervention (Appellant's specification: page 2, lines 11-13).

Indeed, the Examiner goes on to acknowledge that Swain is deficient in this regard (Examiner's Answer: page 10, lines 12-13). In an attempt to make up for this acknowledged deficiency of Swain, the Examiner turns to Van Breen.

Van Breen, however, relates to the stacking/unstacking of discs on a single shaft such that the discs do not come into contact with each other (Van Breen: Abstract). In Van Breen, a dedicated motor 54 is attached to the shaft to cause a drive nut 40 to move in an up or down position to respectively facilitate the unloading or loading of a disc onto the single shaft (Van Breen: col. 3, lines 25-65; and Fig. 1).

Thus, Van Breen fails to make up for the deficiencies of Swain set forth above because, like Swain, Van Breen fails to teach or suggest that "a mechanism associated with said roll retainer shaft is actuated by a rotating action of a mechanism associated with said roll loading shaft to move said rolls along said roll retainer shaft," as recited in claim 1.

Furthermore, it is worth noting that exemplary objects of the present invention include transferring rolls from a roll supply carriage to an apparatus, wherein the roll supply carriage has a simple structure and does not require a special drive mechanism, such that it is capable of supplying rolls by being actuated from an apparatus to which the rolls are to be transferred (Appellant's specification: page 2, lines 18-24). Indeed, Van Breen actually teaches away from these features of claim 1, because the apparatus in Van Breen requires a special drive mechanism (*i.e.*, motor 54) to move the rolls along the shaft of the apparatus.

Further still, the Examiner's allegation that it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the roll moving methods taught by Swain with the methods taught by Van Breen in order to move the rolls without needing a separate handler, thereby simplifying the system by doing away with secondary handling devices, is not supported by the references and, thus, evidences impermissible hindsight on the part of the Examiner. Consequently, the Examiner fails to satisfy his burden of establishing a *prima facie* case of obviousness.

For example, as noted above, Swain fails to disclose that a roll retainer shaft has a mechanism that is actuated by a rotating action of a mechanism of a roll loading shaft to move rolls along the roll retainer shaft. Indeed, Swain merely describes that a button at the end of a mandrel assembly 10 can be depressed and twisted to lock or unlock a shaft 16 from a "load" position (Swain: col. 5, lines 27-29). This locking/unlocking of shaft 16 does not cause the rolls to move along the loading mandrel 110.



Since Van Breen only discloses a single shaft, it would not, absent impermissible hindsight, have motivated one of ordinary skill in the art to modify Swain to include the two mechanisms recited in claim 1, wherein the rotating action of a mechanism of one shaft actuates a mechanism of another shaft to move the rolls along that other shaft. Furthermore, absent impermissible hindsight, the use of a motor on a shaft to move discs on that shaft, as described in Van Breen, would not have motivated one of ordinary skill in the art to modify Swain so as to achieve the interaction of the shaft mechanisms of claim 1.

In view of the above, as well as the rationale set out in the Appeal Brief, it is respectfully submitted that claim 1 is not rendered obvious by Swain in view of Van Breen. Additionally, claim 4 recites features similar to those found in claim 1 and, thus, is not rendered obvious by Swain in view of Van Breen based on the same rationale as that provided for claim 1.

**2. Claims 5 And 10 Are Patentable Over Swain And Van Breen, And Further In View Of Rauh**

Claims 5 and 10 are patentable over Swain and Van Breen, and further in view of Rauh, for the reasons set out in the Appeal Brief.

**3. Claims 8 And 9 Are Patentable Over Swain And Van Breen, And Further In View Of Schiltz**

Claims 8 and 9 are patentable over Swain and Van Breen, and further in view of Schiltz, for the reasons set out in the Appeal Brief.

**4. Claims 11-14 Are Patentable Over Read In View Of Swain**

The Examiner alleges that Appellant sets forth no arguments directed to the combination of Read and Swain as applied in the rejection of claims 11-14 and, thus, the Examiner considers

the rejection to be valid (*see* Examiner's Answer: pages 11-12). The Examiner, however, is mistaken on both counts. Indeed, Appellant clearly set forth exemplary reasons why claims 11-14 are not rendered obvious by the proposed combination of Read and Swain (*see* Appeal Brief: pages 11-12). Furthermore, these reasons clearly refute the validity of the rejection of claims 11-14 as being unpatentable over Read in view of Swain under 35 U.S.C. § 103(a).

For example, claim 11, which is an independent claim, is directed to a roll supply carriage. In particular, claim 11 relates to a roll supply carriage having a moving mechanism for moving a roll along a roll retainer shaft of the roll supply carriage.

Claim 11 recites, *inter alia*, "a moving mechanism for moving said roll along said roll retainer shaft, wherein said moving mechanism is operable to be actuated by a rotating action of a driving mechanism associated with a roll loading shaft toward which said roll is moved."

The Examiner acknowledges that Read does not teach or suggest these features of claim 11. The Examiner, however, incorrectly alleges that Swain makes up for these deficiencies of Read by disclosing a transferring means (not numbered) for moving one of said rolls along said roll retaining shaft (*see* Office Action: page 6, *citing* Read: col. 9, lines 33-40).

To the contrary, Swain merely describes that a substrate 88 can be loaded onto a mandrel 10 either manually or in some similar fashion, such as using a programmed robotic arm (Swain: col. 9, lines 33-41). Nothing in Swain (or Read for that matter) teaches or suggests the recited moving mechanism, which "is operable to be actuated by a rotating action of a driving mechanism associated with a roll loading shaft toward which said roll is moved."

REPLY BRIEF UNDER 37 C.F.R. § 41.41  
U.S. Application No. 09/996,974  
Attorney Docket No. Q66892

In view of the above, claim 11 is patentable over Read and Swain, either alone or in combination. Consequently, claims 12-14 are patentable over Read and Swain at least by virtue of their dependency.

**5. Claim 15 Is Patentable Over Read And Swain, And Further In View Of Van Breen**

Claim 15 is patentable over Read and Swain, and further in view of Van Breen, for the reasons set out in the Appeal Brief.

**6. Claim 16 Is Patentable Over Read And Swain, And Further In View Of Rauh and Sano**

Claim 16 is patentable over Read and Swain, and further in view of Rauh and Sano, for the reasons set out in the Appeal Brief.

REPLY BRIEF UNDER 37 C.F.R. § 41.41  
U.S. Application No. 09/996,974  
Attorney Docket No. Q66892

#### IV. CONCLUSION

For the above reasons as well as the reasons set forth in the Appeal Brief filed on July 26, 2004, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,



---

Billy Carter Raulerson  
Registration No. 52,156

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

Date: December 20, 2004